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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/626,495	07/24/2003	Damian G. Bonicatto	11838.0053-US-01	1998

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MERCHANT & GOULD PC
P.O. BOX 2903
MINNEAPOLIS, MN 55402-0903

EXAMINER	
HANNON, CHRISTIAN A	

ART UNIT	PAPER NUMBER
2685	

DATE MAILED: 02/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/626,495	BONICATTO ET AL.	
	Examiner	Art Unit	
	Christian A. Hannon	2685	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 July 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities:

Regarding the numerous lapses in application serial no.'s reflecting the copending applications associated with this application the following corrections are in order. On line 7 "*application serial no.* _____" should be changed to "*application serial no. 10/626,465*" on line 9-10 "*application serial no.* _____" should be changed to "*application serial no. 10/626,496*" on line 12 "*application serial no.* _____ " should be changed to "*application serial no. 10/627,397*" on line 13 "*Processing and Communication*" should be changed to "*Receiver*" on line 15 "*application serial no.* _____" should be changed to "*application serial no. 10/627,587*" on line 18 "*application serial no.* _____" should be changed to "*application serial no. 10/627,590*"

Appropriate correction is required.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1, 8 & 9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "the substation transceiver" in line 6 of the claim. There is insufficient antecedent basis for this limitation in the claim. The examiner is interpreting "the substation transceiver" to reflect the introduction of the substation receiver, on line 5 of claim 1, and the claim will be examined thusly.

Claim 8 recites the limitation "the substation transceiver" on line 1 of the claim. There is insufficient antecedent basis for this limitation in the claim. The claim is being interpreted similarly to the error in claim 1.

Claim 9 recites the limitation "the endpoint transceiver" on lines 7-8 of the claim. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 2, 6, 7, 9, 10, 13-15 & 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Hunt (US 5,581,229).

Regarding claim 1, Hunt teaches a system for receiving and processing signals received from a plurality of endpoints, each endpoint including an endpoint transmitter in electrical communication with a power distribution lines within a power distribution

system, the system comprising, a power line coupler (Column 4, Lines 20-21; Figure 2, Item 32; Hunt), a substation receiver in electrical communication with the power line coupler (Figure 2, Item 30; Hunt), and a substation circuit in electrical communication with the substation receiver the substation circuit configured to simultaneously demodulate signals received from the plurality of different endpoints (Figure 2, Item 34; column 2, Lines 57-61; Hunt).

In regards to claim 2, Hunt teaches the system of claim 1, wherein the substation circuit is programmed to demodulate signals using frequency shift keying (FSK) (Column 4, Lines 6-19; Hunt).

With regard to claim 6, Hunt teaches the system of claim 2, wherein the substation circuit is programmed to simultaneously demodulate up to 9000 signals, each signal being from a different endpoint transceiver (Column 3, Lines 56-57; Column 5 line 67;Column 6, Lines 1-6; Hunt). In figure 8 Hunt shows that up to N signals sent from separate unique transmitters (Column 6, Lines 1-6; Hunt) can be simultaneously demodulated, since no upper bound is set on N, N can be any integer, 9001 being the integer of most interest in this case.

Regarding claim 7, Hunt teaches the system of claim 1, wherein the substation circuit includes a digital signal processor (DSP) programmed to simultaneously demodulate the signal received from the endpoint transmitters (Column 11, Lines 6-10; Hunt).

Regarding claim 9, Hunt teaches the system of claim 1, wherein the power line coupler is in electrical communication with a power distribution line within a power

distribution system, the system further comprising one or more endpoints in electrical communication within the power distribution system, each endpoint including, an endpoint circuit configured to generate data (Figure 1, Items 24 & 28; Hunt) and an endpoint transmitter (Figure 1, Item 16; Hunt) in electrical communication with the endpoint circuit and a power distribution line (Figure 1, Item 20; Hunt) within the power distribution system, the endpoint transceiver configured to generate a signal embodying the signal, to modulate the data using FSK (Figure 1, Item 14; Hunt), and to transmit the modulated signal onto the power distribution line (Column 3, Lines 25-67; Column 4, Lines 1-19; Hunt).

In regards to claim 10, Hunt teaches the system of claim 9, wherein the endpoint circuit includes an automated meter reading device, the automated meter reading device being interfaced with an electrical meter and the data includes a quantity of electrical power measured by the electrical meter(Column 6, Lines 53-67; Hunt).

With regard to claim 13, Hunt teaches a method of processing signals received from a plurality of endpoints over power distribution lines, the method comprising, obtaining a plurality of signals from a power distribution line, each signal corresponding to a different frequency bandwidth and simultaneously demodulating the plurality of signals (Column 5, Line 67; Column 6, Lines 1-6; Hunt).

Regarding claim 14, Hunt teaches the system of claim 13 wherein simultaneously demodulating the plurality signals includes demodulating each of the signals using FSK (Column 6, Lines 23-41; Hunt).

In regards to claim 15, Hunt teaches the system of claim 14 further comprising simultaneously receiving signals from each of the endpoints (Column 2, Lines 57-60; Hunt).

With respect to claim 19, Hunt teaches the system of claim 13 wherein obtaining a plurality of signals from a power distribution line includes obtaining up to 9000 signals (Column 3, Lines 56-57; Column 5 line 67;Column 6, Lines 1-6; Hunt). In figure 8 hunt shows that up to N signals sent from separate unique transmitters (Column 6, Lines 1-6; Hunt) can be simultaneously demodulated, since no upper bound is set on N, N can be any integer, 9001 being the integer of most interest in this case.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 3-5 & 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hunt.

Regarding claims 3 & 16, Hunt teaches the system of claim 2 and method of claim 15 respectively, Hunt also teaches the use of a demodulator to demodulate a range of frequencies (Column 5, Line 67; Column 6, Lines 1-6; Hunt). While Hunt does not explicitly specify a particular frequency range, it would have been obvious to select any frequency within a range so that the invention was still operable.

With respect to claims 4 & 17, Hunt teaches the system of claim 3 and method of claim 15 as well as wherein each signal has a bandwidth of about 10 MHz or less (Column 4, Lines 30-34; Hunt).

In regards to claims 5 & 18, Hunt teaches the system of claim 4 and the method of claim 17 respectively, Hunt also teaches that each signal has a bandwidth (Column 4, Lines 30-34; Hunt). While Hunt does not explicitly teach a particular bandwidth it would have been obvious that given certain system restraints a 4MHz bandwidth must be used.

Regarding claim 11, Hunt teaches the system of claim 9, however Hunt does not teach that each endpoint further comprises an endpoint transceiver, the endpoint transmitter integrally formed in the endpoint transceiver. However since Hunt establishes a receiver and a transmitter (Figures 1 & 2; Hunt), it would be obvious to one of ordinary skill in the art to combine this for communication both ways.

In regards to claim 12, Hunt teaches the system of claim 1,however Hunt does not teach such that the system further compromises a substation transceiver, the substation receiver integrally formed in the substation transceiver. However since Hunt establishes a receiver and a transmitter (Figures 1 & 2; Hunt), it would be obvious to one of ordinary skill in the art to combine this for communication both ways.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Flen et al (US 6,998,963) discloses an endpoint receiver system.

Farnsworth et al (US 4,396,915) discloses an automatic meter reading and control system.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christian A. Hannon whose telephone number is (571) 272-7385. The examiner can normally be reached on Mon. - Fri. 8:00 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban can be reached on (571) 272-7899. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Christian A. Hannon
February 15, 2006

2/21/06

QUOCHIEN B. VUONG
PRIMARY EXAMINER